N. A. C. A. BULLETIN

Vol. XXVII, No. 11 February 1, 1946

IN THIS ISSUE

Problems Involved in Pricing Postwar Products, by Albert E. Grover.... 483

Fully Amortized Emergency Facilities, by William Y. Armstrong..... 495

Airline Accounting, by Charles A. Zarini 507

Our Open Forum 514

Cost Currents 518

Chapter Meetings 521

Chapter Ratings 527

EDITORIAL DEPARTMENT NOTE

The return of strong price competition in the period immediately ahead is bound to focus attention on the cost-price relationship and on the types of cost information supplied by industrial accountants for use in pricing. In the first article in this issue of the *Bulletin*, Albert A. Grover outlines the problems involved in arriving at product costs for pricing purposes and discusses the use of such cost estimates in arriving at pricing decisions. Mr. Grover has had wide experience in the industrial accounting field, having served as Comptroller of The Dunham Co. of Berea, Ohio, from 1919 to 1921, as a consultant on cost systems for engineering and accounting firms specializing in foundries and machinery manufacture, and as Cost Consultant for the Machine Tool Builders Association. For the past few years years he has been Cost Analyst with the Thompson Aircraft Products Co. of Cleveland. Mr. Grover has been a frequent speaker before N. A. C. A. chapters and gatherings of engineers and accountants and has written numerous articles for the *American Machinist, Foundry Magazine*, and the *N. A. C. A. Bulletin*. A charter member of N. A. C. A., Mr. Grover has served as President of the Cleveland Chapter and a member of the National Board.

There are many ramifications to the problem of accounting for emergency facilities which have been fully amortized for tax purposes. The second article in this issue of the *Bulletin* provides a welcome addition to the research study which appeared as Section II of our January 1 *Bulletin*. Mr. Armstrong, author of the current article, is concerned with the recurring problem of depreciation and amortization of fully amortized war facilities and the accounting problems involved. But he also takes into account those direct operating charges which depend on asset valuation, such as insurance and taxes, and therefore give rise to the same type of questions as are found in depreciation and amortization of war facilities.

"Bill" Armstrong is a chemical engineer and a registered professional engineer in Ohio. From the time of his graduation from the University of Illinois in 1922 he has been associated with The American Appraisal Company, which he represents as Cleveland District Manager. Active in the N. A. C. A. for many years, he has been Past President of the Cleveland Chapter and is at present serving as National Director.

The abandonment of wartime restrictions on civilian airline travel and the announced intention of all airlines to expand their routes and facilities has brought to the front many accounting problems, briefly discussed in Charles A. Zarini's article on airline accounting. For the present the chief problem is revenue accounting, but *cost* of transportation will no doubt emerge soon as a vital factor. Mr. Zarini is a Partner of Stanley V. Davies & Co., Denver, Colorado. He was formerly Assistant to the Treasurer of Continental Airlines, Inc., of Denver, Colorado.

Articles published in the *Bulletin* present many different viewpoints. In publishing them the Association is not sponsoring the view expressed, but is endeavoring to provide for its members material which will be helpful and stimulating. Constructive comments are welcomed and will be published in the Forum Section of the *Bulletin*.

This *Bulletin* is published semimonthly by the National Association of Cost Accountants, 385 Madison Ave., New York 17, N. Y. Subscription price, $10.00 per year. Entered at the Post Office, New York, N. Y., as second-class matter August 28, 1925, under the Act of March 3, 1879.

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FEBRUARY 1, 1946

PROBLEMS INVOLVED IN PRICING POSTWAR PRODUCTS

By Albert E. Grover, Cost Analyst,
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CONFUSION in postwar planning confronts everyone. In this connection Harry E. Howell stated: "It is perhaps true that much of the so-called postwar planning consists of talk, of wishful thinking, of speculating on some new miracle product that will change the nation's economy, and of many things, except a plan of action upon which work can be started. It seems necessary to attempt to bring thinking on the postwar problem down to a technique or process, at least so far as the accountant is concerned, which will enable him to start working rather than speculating."[1]

During the period of World War II, management was primarily interested in producing the implements of war at any cost, and since production costs are not a dominant factor in the operation of a business engaged in war work, cost accounting was slighted during the war period. Effort was instead directed to matters involving reimbursability of costs, recoveries on terminated war contracts, renegotiation, relief under section 722, etc. However these conditions do not relieve management from recognizing the importance of studying anew their costing procedures to ascertain if changes should be made. Such changes should consider the necessity for controlling postwar costs and for using them as a basis for establishing a dependable price policy for each product. We have every reason to believe that price ceilings will be continued for some time to come and that these ceilings will continue on the basis of prewar operating conditions.

At a supervisory staff meeting of the Thompson Aircraft Products Company last year the President stressed the importance of being ready to make the things that people will want in the postwar period, at a price which they will be willing to pay, and at a cost to manufacture and market that will insure our company a normal rate of interest upon the invested capital, as well as a fair operating profit; all this to be done without sacrificing our reputation for

[1] *N. A. C. A. Bulletin*, October 1, 1944, p. 99.

quality. This undoubtedly is the situation confronting most manufacturers at this time whether they realize it or not.

Under the tremendous pressure exerted to provide the armed forces with fighting equipment, little attention was paid to the development of normal costs. The primary emphasis was put on producing the best product in the least possible time, with little regard to production costs. This condition cannot prevail in the postwar period when many companies have an oversupply of equipment and personnel and may be faced with the problem of securing even enough business to keep the plant running normally. Therefore each company that competes on a basis of a scientifically prepared sales price for each item to be produced, will be in a position to select the work that is most profitable.

It makes very little difference as to what the nature of the product may be, but the manner in which costs are applied to individual jobs has a decided effect on the ability of the company to prosper. The wide-awake company will manufacture only such items as the plant is equipped to produce efficiently and will establish effective controls over wastage in manpower, in product, and in the use of fixed and perishable assets. As a matter of fact, the very existence of any manufacturing company during the postwar period may well depend upon how much intelligent effort it has put into analyzing the costs of the various products which it will manufacture.

Function of Cost Department

The cost accounting department must make the cost estimates as thoroughly reliable as possible. This must be done by eliminating, if necessary, present cost procedures and establishing more effective ones, even if it takes more clerks to do the job. The importance of preparing an effective basis for establishing a postwar price policy cannot be overemphasized. Such a basis must take into account:

1. Anticipated material unit prices.
2. Labor cost per hour for each type of operation.
3. Overhead cost per hour for each operating facility used in production.

The purpose of any manufacturing enterprise is to develop, produce, and market the product for which it was organized. There-

fore, every element of cost necessary to perform these functions must be analyzed and the proper cost established. A convenient form for the assembling of costs as a basis for a price policy is illustrated in Exhibit 1. On this form all major elements of costs are combined with a normal profit figure to give an estimated selling price. This form should be prepared for each product to be manufactured.

Manufacturing Costs

Manufacturing costs in Exhibit 1 are divided into two major classes, material costs and producing costs. Material cost includes the invoice price of the material, the cost of transportation from the supplier's distribution point to the receiving dock of the company, and an additional charge for receiving, handling, and storage. The charge for receiving and handling should be based on the denomination used as a factor for inventory control, such as pounds, pieces, gallons, etc.

Producing cost is further classified as direct labor and overhead. Direct labor includes setup, processing, and inspection and is allocated directly to each production operation. Under certain conditions it is not practical to apply setup costs directly to an operation, and the direct application of inspection costs often requires more clerical effort than is warranted. In such cases the cost may properly be included in the general variable overhead of the department in which the setup and inspection take place.

Overhead is made up of variable expense and fixed expense. Variable expenses are those that generally fluctuate directly with the rate of activity while fixed expenses are usually those that tend to remain constant regardless of the rate of activity. Among the former may be listed power, product handling, supplies, maintenance, etc. Fixed charges include such items as depreciation, property taxes, property insurance, factory administration, accounting, etc. An analysis of the specific conditions under which the company operates is necessary to classify the expenses of each of these classes. To charge them into product costs, it is desirable that separate hourly overhead rates be established for variable expenses and for fixed expenses in each department. If there is a marked

ESTIMATING COST SHEET

MANUFACTURING COST			
MATERIAL			
Invoice Cost			$1,000
Freight			10
Receiving and Handling			60
Total Material Cost			1,070
PRODUCING			
Direct Labor		$ 730	
Overhead—Variable		500	
—Fixed		1,100	
Total Producing Cost			2,330
Provision for Scrap Losses			47
TOTAL MANUFACTURING COST			$3,447
MARKETING COST			
SHIPPING			
Materials	$ 200		
Packing and Shipping—Direct Labor	50		
—Overhead	40		
Total Shipping Cost		$ 290	
SELLING COST @ 10% of Producing Cost		233	
TOTAL MARKETING COST			523
DEVELOPMENT COST			500
GENERAL ADMINISTRATIVE COST @ 4% of Producing Cost			93
TOTAL COST			$4,563
PROFIT			
Interest on Invested Capital			
Invested Capital	$61,156		
5% for normal annual interest	3,058		
16,200 normal hours equals 19¢ per hour			
Interest for 852 hours for the job		$ 162	
5% provision for stockholders' risk		162	
TOTAL PROVISION FOR NORMAL PROFIT			$ 324
SELLING PRICE FOR THE JOB			
Estimated ..... Date..... By.....			$4,887
Established Ceiling			$5,500
Competitive Price			
Quoted ..... Date..... By.....			$5,500

EXHIBIT 1

variation in the hourly operating costs of different sizes and types of equipment used in production, greater accuracy will be obtained through the use of machine hour rates; in other cases man hour rates may be satisfactory.

Marketing Costs

Marketing costs consist of the cost of shipping and the cost of selling. Shipping cost like manufacturing cost is made up of the costs of material, labor, and overhead. The material cost for shipping includes containers, crates, wrapping paper, lumber, etc., in short, all items which are used to protect the product in transit from the manufacturer's shipping platform to the plant of the customer. These items are usually of such diversified nature and size that the cost should be charged directly to the individual item being shipped. Freight or cartage paid by the company should be included directly in the shipping material cost.

Shipping labor includes all direct labor used in packing and crating and should be charged directly to the individual job. Overhead should be established in the same manner as for the producing departments and be applied on the direct labor hour basis.

Selling costs include all costs which are necessary for the marketing of the product and consist in part of salaries, commissions, traveling expense, depreciation charges on building and office furniture and fixtures, advertising, telephone and telegraph expense, demonstrations, sales proposals, losses from uncollectible accounts, etc. These costs as applied to different product classes do not vary in the same ratios as the manufacturing costs for the same products. It thus becomes necessary to establish a standard rate for applying selling costs to shipments. In the establishment of the standard rate it is first necessary that all selling costs be allocated to the proper product classes. Each item of selling expense should, so far as possible, be distributed as a direct charge. The distribution of indirect charges should be accomplished by using bases most nearly representing the usage of the various services. As most industrial organizations maintain needed selling facilities for marketing a normal amount of their products, standard classified selling cost percentages must be established on a normal basis for use in costing shipments.

Because of fluctuating market conditions it is unusual for the

company which makes more than one type of product to earn the same percentage of profit on each of the several products. Therefore, the sales price which includes varying profits is a precarious base on which to establish and apply marketing costs. As the ratio of material costs to total costs varies widely for the different classes of products and sizes of each class, it is advisable to exclude the material cost when establishing standard rates for applying sales costs to the shipments and use producing cost as the basis in determining a standard rate. For example, if the selling cost for a single class of product is $20,000 per month and the producing cost is $200,000 per month, the rate to be used for this particular case is 10 per cent. This percentage would be used to determine the selling cost on all estimates in this class of products. (See Exhibit 1).

Development Cost

Development cost includes the cost of engineering, of producing samples, and of laboratory analysis. In turn, engineering costs cover designing and drafting labor necessary in the preparation of blueprints and specifications required for tooling and processing. The proper procedure, therefore, is to apply such labor to each job or project, similar to the procedure used in distributing direct labor costs in manufacturing departments. In the same way overhead costs may be applied to each job on the basis of the hourly overhead rates that have been established for costing the engineering activities.

It may be necessary to produce samples of the product which is being developed. The material, direct labor, and departmental overhead of the producing departments which process the samples should be applied to the job in the same manner that they are applied in regular production. Similarly, in making the necessary analyses and tests of the sample product, the cost of labor and overhead incurred in the laboratory should also be calculated in a similar manner and included with the cost of engineering and producing the samples.

The development of new products during the postwar period will be on a much more intensive scale than in the prewar period. During this development era, plant executives will be dynamically interested in determining what new products, if any, might be

manufactured economically in their field. In arriving at a decision, executives will of necessity answer the following questions:

1. Whether the company facilities are of such a nature that the product might be economically manufactured. If the plant is equipped for large volume production, emphasis should be placed on securing orders of long duration. Short runs involve increased costs of retooling, setup, etc.
2. Whether the immediate demand for the product would justify ordinary changes in manufacturing facilities.
3. Whether the probable continuing demand would justify major changes in plant facilities with special reference to retooling.

General Administrative Costs

General administrative cost consists of the salaries of the chief executive, his assistants, and other office personnel. It also includes traveling expense of the chief executive and his assistants and the miscellaneous office expenses incidental to the operating activity. The apportionment of general administrative cost to the several plants cannot be accomplished by any scientific rule, but it is quite necessary to establish a percentage to be used in the allocation of these costs to the individual products.

In the allocation of general administrative costs to the product each cost element should, so far as possible, be included as a direct charge. Only those elements which cannot possibly be charged directly should remain for distribution on some other basis. The distribution of these latter charges should be accomplished by using the basis most nearly representing usage. The most common bases for the distribution of such indirect charges are floor area, value of office furniture and fixtures, salaries, and number of employees. When all of the distributions are made, the total cost of each type of activity is then determined. In cases where several plants are operated, these activity costs are allocated to the several plants on the basis of percentages previously established by the management.

In applying the standard general administrative cost rate to the product, the ratio of the total administrative cost of all of the products to the total producing costs for all of the products should be

used. Thus if the monthly administrative cost was $36,000 and the monthly producing cost of all products was $900,000, then the rate to be used in costing a specific product is 4 per cent of the producing cost.

Profit

Profit consists of two parts: (1) a return on invested capital, called interest and (2) a return for entrepreneurial risk. The management of any business cannot speak of a real profit unless it has first returned to the stockholders an amount equal to that which could be secured by placing the same funds in other investments.

In determining the amount of invested capital used in connection with a given job, it is necessary to measure first the value of the fixed assets on the best postwar replacement basis obtainable. Assuming that $61,156 of invested capital would be utilized on this order as illustrated in Exhibit 1, a normal attainable rate of 5 per cent would yield $3,058 annual interest on invested capital. An hourly rate of $.19 results by dividing $3,058 by 16,200, representing the annual available productive hours for the machinery and equipment to be used on the job. Since the required hours for the job are 852, the amount of interest on invested capital applicable to the job is $162.

The return for stockholders' risk is based on the hazards involved in the investment of money in a business enterprise. Assuming such risk to be valued at 5 per cent, this would amount to $162, since it too should be computed on the same invested capital of $61,156. In this way Exhibit 1 establishes an estimated price for the job of $4,887, made up of total cost of $4,563 and profit of $324.

Use of Cost Data for Establishing Prices

Exhibit 2 was prepared to show the use of the estimating cost sheet in determining the acceptance or disapproval of offered business at three different sales prices. These sales prices are as follows:

Case No. 1—Competitive selling at approximately the ceiling price.

Case No. 2—Competitive selling under the ceiling price.

Case No. 3—Competitive selling at substantially under the ceiling price.

Case No. 1

Under this case the competitive sales price is at the ceiling price of $5,500. With an estimated cost of $4,563, a total profit of $937 results. This is the ideal type of business which would recover the 5 per cent normal interest on invested capital, and an additional 5 per cent for the risk of the entrepreneur, as well as an extra marketing profit of $613. The latter could well be used as a cushion against such business as might have to be taken at a loss.

Case No. 2

This case presupposes that a competing company enters the market with a price of $4,000 for the same type of product. This would be $1,500 below the ceiling price and $887 below the price estimated to cover all costs and minimum profit. By using Exhibit 2 we can now determine what concessions we can give:

1. The $162 of normal interest on invested capital may be crossed out.
2. The $162 provided for stockholders' risk may be eliminated.
3. The $93 of general administrative cost is conceded.
4. The $233 of selling cost chargeable to this job is eliminated.
5. The $237 or 22 per cent of the fixed overhead is taken out.

These concessions total $887 or approximately 18 per cent of the total estimated selling price. If the company is operating at less than the established normal hours, and the $887 represents only profit and fixed expenses, perhaps, the new adjusted sales price of $4,000 is justified, as the new sales price would return all of the "out of pocket costs" and a part of the fixed expenses. However, if the company is operating the plant at normal, the best interests of the company can be served by refusing to bid on this type of business.

Case No. 3

In this situation a competitor, who is anxious to secure business, has set the established price far below the ceiling price established

WORK SHEET FOR ADJUSTING COSTS TO PRICES

		Case No. 1			Case No. 2			Case No. 3		
	Original Estimate	*Con. Amt.*	*Adj. Estimate Amt.*	*%*	*Concessions Amt.*	*%*	*Adj. Estimate Amt.*	*%*	*Concessions Amt.*	*%*	*Adj. Estimate Amt.*	*%*
Manufacturing Cost												
Material												
Invoice Cost	$1,000	—0—	$1,000	100	$—0—		$1,000		$—0—		$1,000	
Freight	10	—0—	10	100	—0—		10		—0—		10	
Receiving and Handling	60	—0—	60	100	—0—		60		—0—		60	
Total Material Cost	$1,070	—0—	$1,070	100	—0—		$1,070		—0—		$1,070	
Producing												
Direct Labor	$ 730	—0—	$ 730	100	—0—		$ 730	100	$ 137	19*	$ 593	81
Overhead—Variable	500	—0—	500	100	—0—		500	100	500	100*	—0—	
—Fixed	1,100	—0—	1,100	100	$ 237	22**	863	78	1,100	100*	—0—	
Total Producing Cost	$2,330	—0—	$2,330	100	$ 237	10*	$2,093	90	$ 1,737	74*	$ 593	26
Provisions for Scrap Losses	47	—0—	47	100	—0—		47	100	—0—		47	100
Total Manufacturing Cost	$3,447	—0—	$3,447	100	$ 237	6*	$3,210	94	$ 1,737	51*	$1,710	49
Marketing Cost												
Shipping												
Materials	$ 200	—0—	$ 200	100	$—0—		$ 200	100	$—0—		$ 200	100
Packing and Shipping—Direct Labor	50	—0—	50	100	—0—		50	100	—0—		50	100
—Overhead	40	—0—	40	100	—0—		40	100	—0—		40	100
Total Shipping Cost	$ 290	—0—	$ 290	100	—0—		$ 290	100	—0—		$ 290	100
Selling Cost @ 10% of Producing Cost	233	—0—	233	100	233	100*	—0—		233	100*	—0—	
Total Marketing Cost	$ 523	—0—	$ 523	100	$ 233	45*	$ 290	55	$ 233	45*	$ 290	55

	Case No. 1		Case No. 2			Case No. 3		
Development Cost	$ 500	—0—	$ 500	100	$—0—	$ 500	100	$—0—	$ 500	100
General Administrative Cost @ 4% of Producing Cost	93	—0—	93	100	93	100*	—0—	93	100*	—0—
Total Cost	$4,563	—0—	$4,563	100	$ 563	12*	$4,000	88	$ 2,063	45*	$2,500	55
Profit												
Interest on Invested Capital												
Invested Capital $61,156												
5% for normal annual interest.. 3,058												
16,200 normal hours equals 19¢ per hour.												
Interest for 852 hours for the job	$ 162	—0—	$ 162	100	$ 162	100*	$—0—	$ 162	100*	$—0—		
5% provision for stockholders' risk	162	—0—	162	100	162	100*	—0—	162	100*	—0—		
Total Provision for Normal Profit	$ 324	—0—	$ 324	100	$ 324	100*	—0—	$ 324	100*	—0—		
Extra Marketing Profit	613	—0—	613	100								
Total Profit	$ 937	—0—	$ 937	100								
Selling Price for the Job												
Estimated .....Date.....By.....	$4,887		$4,887		$ 887	18*	$4,000	82	$ 2,387	49*	$2,500	51
Established Ceiling	5,500		5,500				5,500				5,500	
Competitive Price							4,000				2,500	
Quoted .....Date.....By.....	5,500		5,500				4,000				none	

* Indicates red figure.

EXHIBIT 2

by law. The competitor, either by pure guesswork or ineffective cost methods, thinks the price of $2,500 will recover all the "out of pocket" costs and some additional money to help pay fixed expenses. Again consulting the working schedule, it can be seen that the following tentative concessions must be made:

1. The $162 provided for the normal interest on the invested capital.
2. The $162 provided for the stockholders' risk.
3. The $93 of general administrative cost.
4. The $233 of selling cost chargeable to the job.
5. The $1,100 of fixed manufacturing overhead.
6. The $500 of variable overhead.
7. $137 or 19 per cent of the $730 of direct labor.

Accepting business under this condition would result in an "out of pocket" loss of $637, consisting of $500 variable overhead and $137 of direct labor. Under most conditions the job should not be accepted. However, should the company desire to take the job at a loss in the hope that they might secure other profitable jobs as a consequence, it would do so with the full knowledge of exactly what it is doing and might well charge the loss to some promotional account.

FULLY AMORTIZED EMERGENCY FACILITIES

**By William Y. Armstrong, District Manager,
The American Appraisal Co.,
Cleveland, Ohio**

THERE are many problems with which corporations are or will be confronted resulting from the treatment of fully amortized emergency facilities on the corporate books and records. These problems, are in many ways similar to the ones which have existed for some time in relation to fully depreciated property which is still in use. The difference, however, is significant. Before there was such a thing or term as "emergency facilities," regular plant facilities were becoming fully depreciated in a gradual manner though still remaining in active use. Since 1934, through the administration of T.D. 4422, the growth of this group of fully depreciated property in use has become somewhat retarded, so that at the present time the presence of such facilities could easily be overlooked. The cost of emergency facilities in the majority of cases will be fully amortized for tax purposes by the end of this year, which in most cases will be in substantially less than five years from the date of acquisition of such facilities. This abrupt elimination from property schedules through the amortization process of sizable portions of total plant investments is what has created these problems.

It should be clearly understood that amortization of emergency war facilities for tax purposes over a period of five years or less was explicitly permitted by law as an incentive to get private capital to invest in the construction or expansion of plant facilities for the prosecution of the war. Whether these emergency facilities had any postwar usage was of no particular concern to the certifying authorities as long as their immediate acquisition and operation was considered essential in the interest of the national defense program, and later in the vigorous prosecution of the war. In some cases the usefulness of the emergency facilities ceased with the termination of specific war contracts or with the declared end of the emergency period. In other cases the emergency facilities will have usefulness beyond the emergency period in varying degrees depending upon the similarity of the wartime production with the peacetime

production. It is this latter group which constitutes the principal subject matter of this paper.

The principal problems concerning the treatment of fully amortized emergency facilities have been roughly classified in the following four groups:

1. Federal tax.
2. Cost accounting.
3. Corporate.
4. Property insurance.

Each of these groups of problems will be treated briefly and separately.

Federal Tax Problems

On the surface it would appear that with the full amortization of most emergency facilities occurring during the year ending December 31, 1945, there would be no more federal tax problems regarding these items. That assumption is misleading, although it is quite evident that it prevails in a large number of cases where amortization is a part of the federal income tax picture. That assumption fails to recognize that most of the years affected by the amortization deduction have not yet been examined because of the two to three-year lag on the part of the Bureau of Internal Revenue. When these years are examined, taxpayers may be unpleasantly surprised at the many exceptions, disallowances, and assessments that may result from an examination of the amortization computations.

It is generally understood that once a certificate of necessity has been issued for specific facilities, the Bureau cannot question whether or not such items were properly amortizable emergency war facilities. It is to be expected, however, that they will question dates of acquisition in relation to the issuance of the certificates of necessity, dates of acquisition in relation to the starting of the amortization procedure, actual costs as compared to costs shown in the certificates of necessity, treatment of disposals, recomputation of the amortization due to certificates of non-necessity or the presidential declaration ending the emergency period, etc. If taxpayers are to answer such questions satisfactorily, it will be necessary that they have all of this information readily available in the form of schedules or property records.

Cost Accounting Problems

The importance of this problem will depend upon an individual company's policy with respect to the use of cost data resulting from the cost accounting treatment employed. The direct operating costs of emergency facilities are in general depreciation, property insurance, and property taxes. Whether depreciation on fully amortized emergency facilities is to be considered a continuing element of cost is something that will depend upon the policy of each company. It is not intended that this paper will discuss at length the difference between amortization and depreciation as a means of recovering property costs, or the fact that property in use, no matter what its income tax treatment, is depreciating from the cost accounting standpoint.

In respect to the property insurance phase of costs, more definite principles prevail. This property is definitely insurable at its cost of reproduction new less depreciation, and it is incumbent upon good management to provide sufficient property insurance to protect the business in case of loss by fire or other casualty. The cost of this insurance is definitely a part of the cost of manufacturing.

In regard to property taxes, this matter varies considerably among states. In general, however, where a state property tax prevails, recognition is not usually given to the amortization deduction allowed by the federal income tax law, and in its place a procedure more nearly approaching a normal depreciation treatment is required. The cost of these taxes is likewise an inescapable part of manufacturing costs. In addition to these more or less direct costs, there are others of a more general character, the distribution of which to proper departments, cost centers, or specific operations ordinarily relies upon technical data, such as, service floor area, total area, horse-power capacity, power load, investment cost or value. Such costs as power, heat, light, building service expenses, repair and maintenance might be considered in this group. These costs cannot be distributed properly without consideration of the existence, cost, and use of fully amortized emergency facilities.

The above principles are clearly stated in the *Journal of Accountancy* for October, 1945, from which the following quotation is taken:

For each accounting period there must be a determination of the amount of cost which has been absorbed in producing revenue or has otherwise expired, and also the amount of cost which is reasonably applicable to future operations. Diminutions or partial expirations of cost not subject to precise measurement must be determined largely upon the basis of business experience and expert opinion rather than by rigid formula.

From the strictly accounting point of view the depreciation charge against income is the element of primary importance. It should fairly reflect the consumption or expiration of property usefulness that has taken place.

Reports to Management

In order to present this phase of the subject in an orderly manner, it is suggested that consideration be given to the effect of the treatment of emergency facilities on the following common uses of a cost accounting system:

1. Reports to management.
2. Comparison of similar operations.
3. Determination of selling price.

No cost system, no matter how used, will produce reliable results without a consideration of such direct and indirect charges produced by fully amortized emergency facilities. The extent to which any company would want to consider this depends upon the proportion of emergency facilities in the total property picture and on the policy of management in respect to the use of the cost system. If management wants a true picture of operations for specific or general purposes, then surely emergency facilities with the direct and indirect charges affecting them should be included.

One application of cost accounting data that may see considerable use in the future is that in connection with wage disputes. It is thoroughly appreciated that there are many other factors than costs of operations involved in the ordinary wage dispute. However, from the suggestion made by President Truman in respect to testing wage increases and their effect on operations over a period of perhaps six months, and from other indications pointing to an ultimate fact-finding procedure in wage disputes, it would

seem that cost accounting data reflecting actual conditions might play an important part. Consideration should be given in connection with such an application of cost accounting data to the normal charges emanating from all plant facilities, even though some of them might have been fully amortized or fully depreciated for income tax purposes.

Comparison of Similar Operations

The use of cost accounting data in comparing similar operations in the same or different plants is a frequent objective. The results of a cost accounting system for this particular use will be reliable if the existence and use of emergency facilities are not considered in the same manner as for regular facilities. For example, assume an extreme illustration in which there are two identical departments in different plants of the same company, each department having an investment in plant facilities of $50,000, one being regular facilities, and one being emergency facilities, fully amortized, but having a remaining usefulness comparable to the regular facilities. Assume further that both plants were built at the same time and that both had an average useful life of 20 years. On the bases of such assumptions there would be a difference of $2,500 a year in the cost of operating these two departments on the item of depreciation alone if no normal depreciation was considered on the emergency facilities. To this depreciation figure could be added other costs affected by an elimination of the emergency facilities, such as property insurance and property taxes, and you have a substantial difference in the recorded results of these two operations that might lead to erroneous conclusions.

Determining Selling Prices

One of the prime uses of any cost system is in comparing the selling prices with all costs incurred in the manufacture, sale, and distribution of commodities. Let no one be so naïve as to think that selling prices are determined by the simple formula of adding profit to cost. That may have been true in many cases during the war period, but in a competitive economy it certainly does not prevail. No matter to what extent emergency facilities exist and remain in use, the normal charges resulting from their operation will be a factor to be considered in this phase of cost accounting. It

may be argued that since the full cost of such facilities has been recovered in the income tax computations and in the business conducted during the war years, it is not necessary to provide any further recovery in the costs of current or future production. That may be true to a large extent, but that is precisely one of the incentives that was available through the amortization law. The incentive was to give the taxpayer who was willing to invest his own money in the expansion of his plant for the production of war facilities the increased tax benefit and the use of these same facilities free of ordinary fixed charges, if he wished, in the postwar period, provided, of course, that these facilities had remaining usefulness.

To appreciate the full extent of this condition, another extreme case might illustrate the point. Assume two identical plants, both built in 1940 at a cost of $1,000,000 with private funds. But plant A was built with the benefit of amortization and plant B without such benefit. Assume further for the sake of simplicity, an average useful life of both plants of 20 years. Plan B would have to recover $50,000 a year (normal depreciation) more from the sale of its products before it showed a true profit than would plant A. Assume again for the purpose of illustrating the points involved in this feature of cost accounting, that plants A and B were the only ones in their industry and that their products were directly comparable and therefore subject to comparative price buying. Under such conditions, the prices charged for plant B's products would be more than those of plant A by at least $50,000 a year. Two things could happen under such circumstances. Either plant A would consistently undersell B, to the eventual insolvency of the latter, or plant A could get roughly $50,000 a year more profit from the products than it would have to under ordinary business methods. This margin is one of the advantages made possible by the amortization law, and it would seem to be good business judgment to consider this feature in pricing and selling negotiations. From a purely competitive standpoint, however, companies would want to know what that margin is so that it may be eliminated from the selling price if necessary or at least modified.

No case may be expected to be as clean-cut as the foregoing example, but if a business wants to make the maximum profit in a competitive economy, it will need records set up in such manner

as to include charges on all property used in the operation, but to have the charges on the fully amortized emergency facilities segregated for separate consideration. Many companies followed this procedure in their standard costing operations, even during the war period, for the purpose of reports to management and for comparing operations, even though such operations were not subject to the ordinary considerations usually given during a peacetime economy.

Taxable Income vs. Corporate Earnings

This class of problem revolves about the distinction between taxable income and corporate earnings. This distinction is one which few corporations have made to date but one which most corporations will have to face if such a distinction is a material fact. Statements may be expected soon from the accounting associations, and perhaps the S.E.C., on recommended treatment for recognizing a material difference between taxable income and corporate earnings. Already the following statement has appeared in the November issue of the *Journal of Accountancy:*

> Closely related to a decision on the treatment of amortization of emergency facilities for tax purposes is the treatment to be accorded to such facilities in the accounts. When facilities of this kind have continuing value for peacetime uses it seems clear that their full cost should not be charged against the operations of the war period. To do so would result in an overstatement of the costs of the war and a failure to charge against the revenues from postwar production some of the costs clearly attributable to them. Accordingly, sound accounting may necessitate a revision of amortization expenses charged in the accounts during the war years in order to reflect truly the costs of the facilities in the years in which they belong. When such adjustments are made, due regard for a fair presentation of the results of the current year and of the years of the war might, along with other adjustments, involve current reflection in surplus and revised statements for the war years.[1]

[1] A more extensive discussion of the subject is contained in an article by Carman Blough in the December, 1945, *Journal of Accountancy* entitled, "Accounting for Fully Amortized Emergency Facilities."

An illustration may emphasize the possible corporate problems that may exist on this point beyond those cost accounting problems which have been mentioned previously. For the sake of illustration assume the existence of a complete plant built under a certificate of necessity and, for the sake of simplicity, that amortization was properly started in October, 1943 (the beginning of the fiscal year, two years before the end of the emergency period). Assume further that all of the facilities had complete postwar usage comparable to their wartime usage with an average total useful life of 20 years. Under such an extreme assumed set of conditions, the following might roughly represent the results of the operations as of September 30, 1945, under the three alternative treatments:

1. Regular amortization (5 years).
2. Accelerated amortization due to shortened emergency period (2 years).
3. Normal depreciation on assumed 20-year average total life (2 years at 5 per cent).

Treatment of Balance Sheet as of September 30, 1945

	(1)	*(2)*	*(3)*
Cost	$5,000,000	$5,000,000	$5,000,000
Reserve	2,000,000	5,000,000	500,000
Unrecovered Cost	$3,000,000	.....	$4,500,000

Treatment on Earnings Statement for Period Ending Sept. 30, 1945

Net income before amortization or depreciation	$2,000,000	$2,000,000	$2,000,000
Amortization and depreciation	1,000,000	2,500,000	250,000
Net	$1,000,000	$ 500,000*	$1,750,000

* Loss.

Treatments (1) and (2) are roughly those permitted by two of the choices provided by the amortization law and are intended to be for federal tax purposes only. They represent a possible result under regular amortization computations and under the adjustment permitted by the declared end of the emergency period.

The third case, however, represents a truer picture of what the $5,000,000 in plant facilities "earned" for the corporation in 1945 and of the cost of those facilities remaining after two years of operation which would normally be charged against operations in subsequent years. This basis provides a more factual picture of these plant facilities in both the balance sheet and the earning statement. In this illustration it would indicate that the corporation actually "earned" more in 1945 than is shown by the tax computations, and this would be true in any years affected by the amortization basis. Carrying these same conditions into the year ending September 30, 1946, the results of operations in that year under conditions (2) and (3) might be as follows:

	(2)	(3)
Net income before depreciation.....	$2,000,000	$2,000,000
Depreciation	.....	250,000
Net	$2,000,000	$1,750,000

The above illustrates what may occur if the facilities are fully amortized and no recognition is given to the difference between amortization, a function of time, and depreciation, a function of use, in subsequent operations. In this case one year subsequent to the end of the emergency period, earnings, without consideration for the remaining usefulness to the corporation of the fully amortized emergency facilities, would be overstated.

Amortization vs. Depreciation

When the extent of fully amortized emergency facilities and the difference between the amortization, either on the regular or on the accelerated basis, and the normal depreciation is a material factor, then consideration undoubtedly will have to be given in balance sheets, earning statements, and cost statements. The necessity for the recognition of this feature, where it is a material factor would seem quite imperative in the following specific uses of corporate balance sheets and earning statement data:

1. Dividend policy.
2. Credit.
3. Stock values.

4. Prospective earning possibilities.
5. Prospective financial responsibilities.

Some companies have already recognized this condition and have carried into their costs only the normal depreciation accruing on the plant facilities, whether emergency or not, and segregating the difference between this and the amortization for tax purposes in a separate account for reconciliation with the income tax returns. However, many companies who wanted and will have had the tax benefit of the amortization law have not yet recognized this feature. Just how this condition can be corrected will depend upon the facts in each case. There are, however, certain principles which might be suggested as a basis for finding the facts necessary to make this adjustment. The actual mechanism of the adjustment to the accounting records should be an accounting responsibility from facts determined from the following principal steps of analysis and investigation:

1. Verification of the existence of the emergency facilities.
2. Determination of the remaining usefulness of the facilities.
3. Examination of the cost of the facilities by units to eliminate any wartime excesses, such as overtime bonuses, premiums for deliveries of materials, early completion of contracts, and excess capacity not usable in the postwar programs.
4. Write-off of any excesses or abandonments as determined in (2) and (3).
5. Determination of the amount of cost which would normally have been charged to operations during the emergency period.
6. Calculations from the foregoing data of the unrecovered cost properly chargeable to, and usable by, postwar operations and the amount of normal depreciation for each accounting period, or for each unit of production in the postwar period.
7. Establishment of a sound policy for treatment and audit of property and depreciation transactions, a system of property records that will record the above data, and any other that may be necessary or advisable.

The above steps are essentially a process of fact-finding in relation to plant properties and as such would seem to be one of an engineering nature or of a joint engineering and accounting nature. The treatment on the corporate books of such adjustments as may appear warranted from such an investigation would seem to be plainly an accounting operation.

Fire Insurance

A consideration of plant property costs and values seems invariably to lead to a consideration of the effect of such costs on the fire insurance problems. Many companies have independent and continuous appraisal service to supply them with the data necessary for economical and complete placement of their fire insurance and at the same time to be in a position to support a loss claim, if such should be necessary. Others rely on book costs or over-all judgment of management for such data. The latter group should be warned of costs of property incurred during the war period, when such costs are to be used in connection with fire insurance problems. Fire insurance should be placed and is collectible on the basis of the cost of reproduction new of the property, less sustained depreciation. Wartime costs may have sizable amounts included in them which may have been perfectly justified in the prosecution of the war. Such elements as overtime bonuses, premiums for delivery of materials or early completion of contracts, inefficiencies due to inexperienced labor which might be "buried" in cost-plus contracts, etc., would be in this category. These costs are not insurable in the ordinary fire insurance form. Companies will be paying unnecessary premiums and will be misled as to fire loss possibilities if this condition is not recognized. The totals of the excess costs, even though they represent legitimate costs properly amortizable for tax purposes, are in many cases a material factor in proportion to the total cost.

Conclusion

Fully amortized emergency facilities, as well as fully depreciated regular facilities which have remaining usefulness to a company have created a series of problems to companies. These problems may be generally classified as:

1. Federal income tax; examination of amortization deduc-

tion features by Bureau of Internal Revenue in subsequent years.

2. Cost accounting; effect of normal depreciation of fully amortized facilities in respect to—
   a. Reports to management.
   b. Analysis and comparison of plant operations.
   c. Consideration of selling prices.
3. Corporate accounting problems; effect of difference between amortization and normal depreciation of emergency facilities in respect to—
   a. Dividend policies.
   b. Credit.
   c. Stock value.
   d. Prospective earning possibility.
   d. Prospective financial responsibilities.
4. Fire Insurance; property costs incurred during the war period may include sizable elements of cost which are not insurable.

The solution to these problems is a matter that must be determined in each case and will depend to a large extent upon the overall policy of the company and the extent of such fully amortized or fully depreciated facilities. In general the solution will involve the fact-finding steps suggested above and the necessary accounting adjustment to reflect these facts in the corporate accounting and cost records.

AIRLINE ACCOUNTING

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IN order to discuss airline accounting intelligently, let us first analyze briefly the general make-up of the industry. The industry is a complex one because it involves:

1. Regulation by the Civil Aeronautics Authority and the problems incident thereto.
2. Conducting business under the ramifications of many state laws because of interstate operations.
3. Substantial investment in the plant and equipment needed to operate luxury airliners. In addition to the principal investment in aircraft, there are the facilities for maintenance of aircraft at main operation bases to insure maximum safety, and for servicing equipment with gas and oil at intermediate points.
4. An alert and competent meteorology department, indispensable to safe operation, to obtain current weather information and trends. These data are gathered and transmitted by radio.
5. Providing the maximum comfort to passengers through trained hostesses, who, among other things, serve aloft hot, wholesome food which is prepared generally in the carriers' own commissaries under personal supervision of dietitians.

Although primarily engaged in the sale of transportation service, the airline business in effect involves operation of garages to repair aircraft, filling stations to service aircraft, radio stations, weather bureaus, and restaurants, all on a fairly large scale. Naturally trained technicians in each of these categories must be available to do the job properly.

Organization

The duties and responsibilities of most carriers are generally carried out through four major departments, namely:

1. *Operations.* Responsibility for testing and actual flight of aircraft including jurisdiction over pilots, dispatchers, radio transmission personnel, meteorologists, and operations ground personnel at outside stations.
2. *Maintenance.* Responsibility for maintenance, repairing, and servicing of aircraft including jurisdiction over engineers, plant maintainers, etc., and mechanics.
3. *Traffic and publicity.* Responsibility for development of tariffs, schedules, sales, advertising, public relations, and publicity.
4. *Treasury or finance.* Responsibility for all finances of the carriers, which includes the collecting, recording, and reporting of all financial and statistical information of the carrier.

Accounting Requirements

Civil Aeronautics Act of 1938, Section 407 (d), provides that each air carrier engaged in regularly scheduled interstate air transportation within the continental limits of the United States and the territory of Hawaii shall keep its accounts, records, and memoranda in accordance with the "Uniform System of Accounts for Domestic Air Carriers" issued by the CAB, dated January 1, 1942, and such amendments thereto as may hereafter be prescribed.

The principal features of the uniform system of accounts are as follows:

1. Some 200 or 300 pages of small typed material explaining to air carriers what they can do and what they cannot do.
2. Prescribes customary balance sheet items which generally follow "good accounting practices." The balance sheet itself is quite orthodox.
3. Profit and loss statement provided by Uniform Chart of Accounts is the usual type statement except that it is a long, drawn out affair reporting the financial transactions of approximately 150 separate and distinct accounts.
4. Expense accounts are grouped in a condensed profit and loss statement as follows:
    1. Flying operations.
    2. Flight equipment maintenance—Direct.

3. Equipment maintenance—Indirect.
4. Passenger service expense.
5. Traffic and sales.
6. Advertising and publicity.
7. General administrative expenses.

Revenue Accounting

Perhaps the most complex phase of airline accounting is its revenue accounting, especially passenger revenue which constitutes the major portion of the carrier's income. As in all transportation companies, it is essential to have available complicated tariff schedules for on-line as well as through fares involving more than one carrier. Obviously, the transportation industry has the inherent problem of issuing tickets to its passengers. This involves the preparation of a copy to be retained by the passenger, one for the trip itself, and an additional copy for auditing purposes. Without exception each one of these ticket coupons must show the flight number, flight date, origination point, destination point, off-line carriers involved, and the proper fare as shown in the applicable tariff plus the transportation tax thereon.

The passenger coupon is, of course, the passenger's receipt. The auditor's coupon is used in the accounting offices of a carrier in maintaining the proper accounting controls over ticket inventories and cash funds in the hands of its agents. Flight coupons are the sole authority for the passenger to ride and are collected by carrier's personnel, upon boarding any given flight. Each flight coupon finds its way back into the accounting departments of the carriers and constitutes the basis for making bookkeeping entries on the carrier's records.

Ticket sales originate at all points on the carrier's system and, therefore, create the problem of safeguarding the cash proceeds from such sales. It is mandatory that periodic cash reports be prepared at each point on a carrier's system where tickets are sold. It it just as important to see to it that funds so collected are promptly and properly deposited in the company's bank accounts. The auditor's coupon mentioned above is used to prepare the cash reports and accompanies those reports when submitted to the general offices of the carrier.

Flight coupons, which are collected as passengers board flights,

form the basis for the preparation of so-called trip reports from which accounting and valuable statistical information are obtained. This statistical information affords the management an up-to-the-minute report of its daily operations and consists of items such as the following:

1. Revenue passengers carried.
2. Miles flown.
3. Revenue passenger miles (the sum of each paying passenger carried each mile).
4. Load factors (the percentage of capacity on each flight).
5. Miles scheduled.
6. Miles canceled.

Deferred Income

It should be noted here that a trip report naturally would include honored coupons of other carriers. These are referred to as ticket lifts and form the basis for billing the issuing carrier. It might be well to explain that the sale of transportation services generally creates the problem of deferring income as the result of purchasing services for actual use in the future. This is particularly true in the sale of round-trip transportation. It is, therefore, necessary to give the treatment of deferred income special attention, and this may be accomplished in one of the following ways:

1. *Inventory Method*

   After verification of all auditor's coupons, it is possible to file those coupons in an unused ticket file to be used to match with the flight coupons when honored. By pulling the used coupons from the file, those remaining would constitute an inventory of unused tickets. The dollar amount involved in such unused tickets would, therefore, represent the deferred income of the carrier.

2. *Formula Method*

   This method, while not as accurate as the inventory method, is much simpler and yet practicable. Under this procedure all on-line tickets are considered as unearned income when sold. These ticket sales are then converted into revenue passenger miles. The next step is to divide

the total revenue sales by the total revenue passenger miles. This yields a figure representing the average income per passenger mile. The tickets lifted in any month are also converted into passenger miles, and the latter figure multiplied by the average income per passenger mile produces the amount of earned income to be transferred from unearned income previously recorded on the books.

Clearing House for Interline Settlements

As indicated above, ticket lifts form the basis of billing interline carriers for the amount of transportation involved on all honored tickets of other carriers. Prior to January 1, 1943, this was accomplished by preparing detailed statements, supported by honored flight coupons, to all issuing carriers. As a result of a lot of work and study by treasurers of the airlines, the Air Lines Clearing House, Inc., was established on January 1, 1943. This agency is owned and controlled by the domestic air lines and was devised solely to settle all interline balances promptly. The work of the clearing house is accomplished through the use of punched-card equipment from which is prepared a statement of receivables originating, in the main, from the value of ticket lifts of other carriers. Likewise, a statement of payables to other carriers is prepared from punched cards made from sales reports, representing the value of off-line portions of ticket sales. By using proper symbols to designate originating points, destination points, issuing airlines, etc., the receivable cards of one carrier are automatically matched with the payable cards of other carriers, thus constituting completed moves. As a result, it is now possible for carriers to settle their interline accounts monthly by either receiving a check for net differences due from the clearing house or else paying to the clearing house any differences due. The clearing house supplies all carriers with monthly statements of completed moves, statements of uncompleted moves, and statements of differences in order that the status of each carrier with the clearing house is known at all times. The costs of maintaining the clearing house are paid by the domestic carriers on the following basis:

1. One-third of the total cost is prorated equally among the carriers.

2. One-third of the cost is apportioned among the carriers on the ratio of total dollar volume of each carrier's receivables and payables to the total dollar volume of all carriers' receivables and payables.
3. One-third of the cost is apportioned among the carriers on the ratio of total number of receivable and payable transactions of all the carriers.

This clearing house arrangement has been generally accepted by all the carriers as a great improvement since interline balances are now settled promptly each month as compared with the many months of delay resulting from procedures used prior to January 1, 1943.

Credit Sales

Other peculiar revenue accounting problems of airlines are the treatment of government transportation requests and the use of credit cards. Of course, all carriers honor government transportation requests, and tickets are issued upon the proper presentation of such requests. These requests are then accumulated in the accounting departments of the carriers and are used to support billings to the contracting government agencies.

Credit cards are issued by many of the carriers, who generally require a deposit by the subscriber. Such a credit card takes the form of a small imprinted plate showing the name, address, etc., of the subscriber. Credit cards of any carrier are honored by all other carriers. When the subscriber presents his credit card for transportation, it is imprinted on a transportation receipt prepared in sufficient copies to give all parties concerned in the transaction notification thereof. The transportation receipt is prepared in addition to the regular ticket and forms the basis for charging the subscriber for the value of such fare by the contracting carrier and also billing the contracting carrier for the value of such fare by the issuing carrier. Interline script transactions are not now handled by the clearing house but, in all probability, will be added to the procedures in the near future.

Mail Revenue

The Civil Aeronautics Board establishes the rate of mail com-

pensation for carriers by aircraft-mile, pound-mile, weight, space, or any combination thereof, or otherwise. In accordance with the established rate, monthly billings are rendered to the Post Office Department where prompt payment is made subject to final audit. The General Accounting Office verifies payment by examining originals of Post Office reports submitted by each carrier for each trip each day on which there was government mail carried.

By a continuous examination of monthly financial reports required to be submitted by each carrier to the Civil Aeronautics Board, that authority is constantly on the lookout for changes in operating conditions which would justify a reduction in rate of mail compensation. When such a condition exists, the Civil Aeronautics Board issues an "Order to Show Cause" why the carrier rate of compensation should not be reduced on a certain date. The Board order generally supports, in its own way, of course, the factors which justify the reduction ordered. The carrier can either accept this new rate as ordered or it may request a formal answer showing why its rate should not be reduced.

Prehearing conferences between the carrier's counsel and public counsel, representing the Board, are then held to discuss the main issues of the case to be considered at a formal hearing, the date for which is also then decided. Formal hearing is conducted by opposing counsel before an examiner, himself an attorney for the Board. Evidence is then offered by the carrier's counsel, and testimony is taken from chief executive officers of the carrier, particularly its financial officers. Public counsel has the right to cross-examine witnesses to destroy or weaken testimony favorable to the carrier. From the record furnished, public counsel and the examiner make their recommendations to the Civil Aeronautics Board, which then fixes a rate. This rate is generally retroactive to the date in the Board's original order to show cause and is effective until the reoccurrence of a similar procedure or carrier itself petitions the Board to raise its rate because of changes in its operation procedure.

Inventories

It is essential to have sufficient spare parts of all kinds to insure complete repair of any damaged part on aircraft and return the craft to service immediately. A large value in inventory is neces-

sary to keep the inventory adequate even though quantities are maintained at a minimum. Perpetual inventory records are required by the Civil Aeronautics Board. Parts are issued to authorized personnel from approved material requisitions which designate the previously assigned job number for distribution purposes. Job numbers are also used on time cards, and both material and labor are charged to work in process from payrolls and material requisitions. Individual job costs of both labor and material are maintained and closed to appropriate accounts when advice is received that the job is completed. Some jobs, such as gassing aircraft, line maintenance, or current everyday inspection of aircraft, are, of course, automatically closed monthly.

OUR OPEN FORUM

Accounting Service to Management

Editor, N. A. C. A. Bulletin:

The article by George W. Rooney, "Accounting Service to Management," in the November 1, 1945, issue of the *N. A. C. A. Bulletin* should stimulate the thinking of supervisory cost accountants along a line which has not received sufficient attention in the past. For some time accountants have been stressing flexible budgets, fixed increment, direct expenses, apportioned expenses, and variable expenses to the neglect of the obvious, i.e., the control factors of prime costs. Hence, management more or less has become convinced by the accountant that large volume will produce profits as a matter of course. Now that we are entering a period of competitive economy, the control of prime costs must take its proper place in the accounting structure.

The recording and reporting of historical data is not and cannot be cost control. While historical data definitely is necessary from the standpoint of measuring actual accomplishment, no matter how current the data may be, even daily, it is still history, and not one drop of water can be pushed back over the dam. Costs must be controlled before the expenditures are made. Close coordination between material control, production control, and costs is imperative. Competitive manufacturing requires orderly procedure and controlled production. Service to customers must be controlled so that it is neither inadequate on the one hand nor too costly on the other. The extra profit margin represented by the difference between the actual cost and possible minimum cost must be secured by planning to:

1. Utilize labor supply and plant facilities to the fullest practical capacity consistent with sales volume,

2. Eliminate avoidable delays and interruptions to the smooth flow of production through work authorization and the control of processes, and
3. Reduce excessive and unbalanced inventories of materials.

The cost accounting system, of necessity, must be fitted to, and reflect the operations clearly and accurately. If production control is merely a dispatch system and has no follow-up procedure to ascertain positive quantities produced, inaccurate and unreliable product costs will be the inevitable result regardless of how valid the monetary accumulation may be. Since, in a number of instances most secondary cost factors are prorated or apportioned in direct relationship to one or more prime cost factors, it is obvious that the basic data from which direct material and direct labor produce costs are obtained must be sound.

Budgets must be related to the functions which give rise to the expenditures. It would be useless to try to relate a flexible budget to productive labor if the functions of that department or burden center were in no way related to productive labor, but rather to the procurement of materials on which productive labor may or may not be incurred in a subsequent period. Likewise, prorations based on unsound prime cost factors cannot help but result in fictitious and distorted total costs whether they be standard or actual, calculated on a unit, process, job order, or departmental basis.

Cost reports, comparisons of actual costs with standards or estimates, departmental budgets or distribution of expenses by burden centers, forecasts, special analyses, and accounting by causes are some of the necessary details through which the accountant endeavors to render service and assistance to management. However, it is a fundamental fact that the assistance rendered through all the other functions of the cost accountant is eclipsed by the assistance that can be rendered through the control and determination of accurate prime costs of the products produced and sold.

VERNON M. MORRIS,
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Editor, N. A. C. A. Bulletin:

Mr. Rooney's article, "Accounting Service to Management," which appeared in the November 1 *Bulletin*, presented a most able and timely discussion of matters with which each progressive accountant should be deeply concerned. In fact it represents, at least to a certain extent, a challenge from management to accountants to do a better job.

As pointed out by Mr. Rooney, one of the ways in which accountants can be of greater service to management is through the presentation of reports and analyses to top management and operating department heads prepared in such a manner as to be of the greatest assistance to those receiving them. Based upon specific requests from management and the accountant's intimate knowledge of the information that would be helpful to those charged

with the responsibility of operating the business, the accountant should prepare certain periodic reports and analyses for management that will keep it currently informed as to operations, costs, etc., summarized as far as possible for top management and detailed as far as necessary for operating department heads. In this connection, it should be remembered that executives and department heads are busy men; therefore, reports and analyses will be of greatest value to them when accompanied by the accountant's comments pertaining to such matters as are of special interest or those requiring attention.

In many instances, some accountants have been content to furnish merely the information requested by management without offering suggestions relative to additional or other information essential to the successful operation of the business that could be furnished by the accounting department. In other instances, some accountants have been content to submit reports and analyses to management without comments of any kind, feeling that the information is contained therein for any who read them. Usually this results in either the referral of these documents to a third person to review and point out to management any item of special interest or requiring attention (thus decreasing the accountant's value to management) or a casual perusal of the documents by busy executives who do not have the time to really study them and filing without taking action on some matter that may require attention (thus decreasing the accountant's value to the company).

Mr. Rooney also discussed the need for better information relative to costs and cost controls in manufacturing plants. I believe that all will agree that, now that the war is over and we are entering what will probably be the most competitive era in American industry to date, the successful manufacturers will insist upon more accurate costs and more effective cost controls. Prior to the war, some cost accounting departments were operated primarily for the recording of costs as a financial matter. Efficient manufacturing requires that operating department heads be furnished with certain cost statements at frequent intervals during the month, so that any operating inefficiencies may be detected and corrected immediately (without waiting until the monthly figures have been compiled); the accountant who realizes this and organizes his cost accounting department to function in such a manner will greatly increase his value to management.

Another manner in which the accountant can render a better service to management, mentioned by Mr. Rooney, is in better coordination of financial and accounting matters with other executives and department heads. I am sure that all of us have encountered problems that could have been solved much more easily had all of those concerned been properly informed as to the management's policies, plans, or desires in those connections. In many instances, perhaps management was at fault in not informing the accountants. However, in order to be successful, the accountant must continually exercise the ingenuity necessary to gain the confidence of management to the end that he will be informed of all policies and plans relating to financial and accounting matters, and can thus coordinate these matters with other

executives and department heads concerned. As Mr. Rooney says, "You must share the burden by standing on your own feet and progressing through your own initiative."

It seems to me that Mr. Rooney's article, or challenge as I like to consider it, is one that is of great importance to all of us who would render a greater service to management to the end that we may some day merit an invitation to become a part of management.

CLYDE H. BUTT,
Los Angeles Chapter.

Editor, N. A. C. A. Bulletin:

In his article, "Accounting Service to Management," appearing in the November 1, 1945, *N. A. C. A. Bulletin*, George W. Rooney passes on logical advice to his readers when he says "The industrial engineering phase of cost control is highly important and should provoke thinking." His suggestion to include an industrial engineer in the cost and statistical department, because of the industrial engineer's specialized training and experience in accurately segregating manufacturing costs into its factors, is a step that progressive management should adopt. Unless it is indifferent to cost figures, management will recognize the profitableness of cost control through industrial cost engineers.

Mr. Rooney also points out that the accountant and the industrial engineer not only can "integrate" their services for management, but also can "hit it off" if the accountant does not have an aversion to the industrial engineer's mathematical formulas. As he puts it, "In many cases, neither the accountant nor the industrial engineer has taken full advantage of what each has to offer in attaining cost control."

Since the attainment of adequate cost control hinges upon a controlled cost system, Mr. Rooney reminds management of the pitfalls of an uncontrolled cost system when he says "standards of measurements, as developed by the industrial engineer, cannot be used to their fullest extent unless they are tied in, step by step, with the accounting records." Thus the services of the industrial engineer should supplement, rather than supplant, the functions of the accountant.

While it is true that accountants can assemble cost data from cost cards prepared without the aid of the industrial cost engineer's technical knowledge of operating costs, this procedure is haphazard and unreliable. Inasmuch as management's decisions are based, to a great extent, upon cost information presented to it by its cost accountants, it should appreciate Mr. Rooney's remarks that the industrial engineer adds considerably to the accountant's understanding of operations, and that full consideration must be given to this point if we, as accountants, are going to do a better job.

ALFRED J. MERLINE,
Philadelphia Chapter.

COST CURRENTS

JTR Prescribes Rules for Preservation of Contract Records—Revision No. 5 of the Joint Termination Regulation, dated December 15, 1945, contains a new section, number 763, which states the rules prescribed for the preservation of contract records by war contractors. As previously reported in the *Bulletin* of July 15, 1945, records must be kept for at least five years from (a) date of disposition of inventory, (b) final settlement of the war contract or (c) termination of hostilities, whichever is later. The current revision outlines the contractor's responsibilities in this connection. The regulations read in part as follows:

1. *Effect of contract provisions.* Section (19a) of the Act prohibits the "willful destruction" of certain records but does not prescribe the manner in which retained records will be stored. However, numerous contracts contain provisions requiring the contractor to "preserve," "maintain," "store," "retain," or "make available to the Government" records relating to such contracts after the termination or completion of the contract. In the absence of contract provisions expressly prescribing the manner of storage, the war contractor shall be required, by reason of his contractual obligation, to provide only an "inactive" or "dead" type of storage. Such storage will not require that records be indexed or filed with a meticulous degree of care, nor that they be maintained, perfected, or serviced by full time record personnel, but merely that they be reasonably accessible and identifiable.

2. *Destruction of copies.* The contract provisions referred to in subparagraph (1) require a war contractor to retain only the original record, or an exact copy thereof, and extra or multiple copies may be destroyed. This does not authorize the destruction of a copy which contains significant notations or information which do not appear on the original or retained copy.

3. *Storage of records.*

   a. It is desirable, wherever practicable, to store all records pertaining to the same contract in the same place regardless of whether the Government or the contractor is required to bear all or part of the costs of such storage in accordance with subparagraph (4). In the event of a division of responsibility for the cost of storage, the costs shall be apportioned and adjusted by negotiation.

   b. When required by statute, regulation, or agreement, the war contractor may deliver certain records (for example, medical records and property records) to an interested Government agency or other agency, under an agreement whereby such agency

shall preserve and store the records for part or all of the period for which the contractor is required to store the records; provided that, if the period during which such agency is to store the records is less than that during which the contractor is required to store the records, the right to repossess the records at the conclusion of the period should be exercised by the contractor. Delivery of records under these circumstances shall be deemed compliance with the contract provisions referred to in subparagraph (1).

c. In view of the provision appearing in many contracts (e.g. paragraph 932) requiring the contractor to make records available to the Government at his office, records should, where practicable, be stored by the contractor on his premises. In the event that sites are made available in Government-owned premises for the storage of a war contractor's records and are utilized by a contractor who is required to bear the cost of storage, the reasonable value of such storage space shall be credited or paid to the Government.

4. *Responsibility for cost of storage after termination.* The rights of the parties under the contract in connection with records will be negotiated and settled in the settlement of the terminated contract to the greatest extent practicable. As a general rule, reasonable costs incurred by the war contractor after the effective date of termination in preparing for storage, retaining, and storing records should be compensated for in the settlement of the terminated contract only to the extent that:

   a. The contract affirmatively so requires; or
   b. Such expenses are incidental to, and are incurred prior to, the settlement of the contract; or
   c. The war contractor, at the request of the contracting officer, stores records in addition to those which he is obligated by his contract to store or furnishes greater services in connection with the preparation for storage, retention or storage than prescribed by his contract.

5. *Designation of records to be retained.* Where a contracting officer under the provisions of a contract has discretion to designate the records to be retained by a contractor, he will exercise that discretion actively by instructing the contractor which of all the contractor's records he desires to be retained. The contracting officer will not rely merely on the provisions of section 19(a) of the Act to secure retention of appropriate records. However, in so instructing the contractor, the contracting officer will inform him that his instructions do not affect the obligations of the contractor under the Contract Settlement Act or other pertinent statutes or regulations.

William O. Cutter

1876-1945

His many friends in N. A. C. A. were grieved to learn of the death on December 22 of William O. Cutter. One of the pioneers in the field of industrial accounting, Mr. Cutter was early associated in the firm of Cutter, Fletcher & Co. with a group of men who later contributed greatly to N. A. C. A. Included in his associates in this firm were three men who later became National Presidents of N. A. C. A.—Frank L. Sweetser, F. Richmond Fletcher, and C. Howard Knapp. In 1916 Mr. Cutter joined the United Rubber Co. as Comptroller, and the firm of Cutter, Fletcher & Co. was absorbed by Scovell, Wellington & Co. Mr. Cutter was associated with the United States Rubber Co. for 17 years, first as Comptroller and then as Vice President in charge of Accounts and Finance. During this period he was for many years an active officer of the Rubber Manufacturers Association, serving for three years as Treasurer, and being Chairman of the Committee which developed the "Uniform Accounting Manual for the Rubber Industry." Since 1933 Mr. Cutter has been associated with Haskins & Sells in New York City.

Soon after joining N. A. C. A. in 1921, Mr. Cutter was elected a member of the National Board. His election as National Treasurer followed in 1924, and he continued in this position until 1933. During his many years as a national director and officer of the Association, Mr. Cutter contributed greatly to its development and growth. Those who have joined the Association in recent years will have missed the privilege of knowing him but will have benefited from many contributions which he made to the Association. Those who were so fortunate as to know him in the earlier days will miss his kindly presence and friendly counsel.

CHAPTER MEETINGS

February, 1946

Chapter / *Meeting Place*	*Date*	*Subject and Speaker*
Akron Portage Hotel	19	To be announced.
Albany Aurania Club	19	*Coordination of Office Methods* Harold Stephens, Methods Coordinator, Behr-Manning Corp.
Atlanta Atlanta Biltmore Hotel	19	*Financial Statement for Management Use* Howard C. Greer, Vice President and General Manager, Kingan & Co.
Baltimore Emerson Hotel	19	*Cost Control Tools for Foremen* Nicholas St. Peter, Resident Comptroller, Hyatt Bearings Div., General Motors Corp.
Binghamton Hotel Arlington	14	*Statistical Data for Cost Control* T. R. Elsman, Assistant Controller, Monroe Calculating Machine Co.
Birmingham Hotel Thomas Jefferson	19	*Cost Control—Quick Figures—Accounting* H. Gordon Calder, Vice President and Treasurer, Southern Natural Gas Co.
Boston Hotel Vendome	20	*Basic Standard Costs* Eric A. Camman, Partner, Peat, Marwick, Mitchell & Co.
Bridgeport Stratfield Hotel	21	*The Place of Accountants and Accounting in Today's Economy* Maurice E. Peloubet, Partner, Pogson, Peloubet & Co.
Brooklyn Central Branch, Y. M. C. A.	13	*Cost Control by Physical Measurement* David B. Caminez, Assistant Comptroller, Hyatt Bearings Div., General Motors Corp.
Buffalo Covenant Church	21	*Cost Controls of Personnel and Job Evaluation* Dr. Charles H. Reitell, Stevenson, Jordan & Harrison, Inc.
Calumet Hotel Gary	19	*Federal Taxation on Income* Paul Johnson, Manager, Tax Dept., Ernst & Ernst.
Cedar Rapids Hotel Roosevelt	13	*Account Controls for Management* O. E. Mount, Vice President and Secretary, American Steel Foundries
Chattahoochee Valley Cherokee Lodge	21	*Postwar Economic Problems Affecting Costs* W. A. Sutherland and Joseph B. Brennan, Sutherland, Tuttle & Brennan.

Chapter *Meeting Place*	*Date*	*Subject and Speaker*
Chattanooga Hotel Patten	21	*The Control of Labor Costs* William R. Ingram, Secretary, Ken-Rau, Inc.
Chicago Furniture Club of America	28	*A Case Study of Standard Cost System in a Manufacturing Plant* William E. Perry, Comptroller, The Scranton Lace Co.
Cincinnati Hotel Gibson	21	*Cost Accounting and Business Survival* H. T. McAnly, Resident Partner, Ernst & Ernst.
Cleveland The Carter Hotel	21	*A Simplified Method for the Determination of Normal Burden Rates* Holloway Kilborn, Assistant Secretary-Treasurer, Drop Forging Association.
Columbus Fort Hayes Hotel	18	*The Fundamentals of Methods Improvements* W. Clements Zinck, Factory Manager, Henry Weiss Mfg. Co.
Cuba Havana Yacht Club	27	*Reorganization of Companies* Dr. Jose Eligio Gorrin, Partner, Rosales, Gorrin and Mañas.
Dallas Melrose Hotel	15	*Industry's Stake in Accounting and Business Education* C. Aubrey Smith, Professor, College of Business Administration, University of Texas.
Dayton Van Cleve Hotel	19	*Looking Ahead in Property Accounting* William Y. Armstrong, District Manager, The American Appraisal Co.
Decatur Leland Hotel	21	*Financial and Cost Problems* G. M. Pelton, Financial Analyst, Swift & Co.
Denver Cosmopolitan Hotel	19	*A Report from Management to Accountants on the Cement Industry Problems* Cris Dobbins, Vice President and General Manager, Ideal Cement Co.
Des Moines Commodore Hotel	21	*The Impact of Social Forces on Accounting Concepts* Parry Barnes, Lunsford, Barnes & Co.
Detroit Detroit-Leland Hotel	21	*From Cost-Plus to Price-Minus* William Blackie, Vice President, Caterpillar Tractor Co.
Erie Moose Club	18	*The Budget and the Human Side of Figures* Kenneth W. Thompson, Chief Branch Accountant, Kroger Grocery & Baking Co.
Evansville McCurdy Hotel	21	*Reconverting Industrial Accounting* Mason Smith, Partner, McKinsey, Kearney & Co.
Fort Wayne Chamber of Commerce	19	*Postwar Pricing Policies and Accounting* Mason Smith, Partner, McKinsey, Kearney & Co.

Chapter Meeting Place	Date	Subject and Speaker
Fort Worth Blackstone Hotel	21	*The Development and Significance of Standard Cost as a Tool of Business Management* Dr. Ellis M. Sowell, Professor of Accounting and Dean of School of Business, Texas Christian University.
Grand Rapids Rowe Hotel	19	*Production Cost Control* W. E. Crotsley, International Business Machines Corp.
Greenwich Hugo's Piccadily Restaurant, Stamford	19	*Recent Developments in Industrial Financing* Gibbs Lyons, President, First-Stamford National Bank & Trust Co., and W. J. Farthing, Manager, Loan Agency, Reconstruction Finance Corp.
Hagerstown Hotel Alexander	21	*What Management Expects from the Cost Accountant* Myron B. Gordon, Vice President of Opertions, Fairchild Engine & Airplane Corp.
Hampton Roads Albany Restaurant, Norfolk	15	*Internal Accounting Control* Capt. L. C. Peppell, U. S. N. R., Supervisory Cost Inspector, Fifth Naval District.
Harrisburg Penn-Harris Hotel	12	*Commercial Law Problems Affecting Accountants* Wilhelm E. Shissler, Attorney, Nauman, Smith & Hurlock.
Hartford Farmington Country Club, Farmington	19	*Shall We Have Job Costs or Standard Costs?* Francis L. Haskell, Wallace Barnes Co., Div. Associated Spring Corp., and Raymond Payne, The Arrow-Hart & Hegeman Electric Co.
Houston Y. M. C. A.	20	*Postwar Adjustments and Settlements of Property Accounts* W. J. Crawford, Senior Accountant, Comptroller's Staff, Humble Oil & Refining Co.
Indianapolis Lincoln Hotel	20	*Some Postwar Problems in Accounting* William W. Werntz, Chief Accountant, Securities & Exchange Commission.
Jackson Heldelberg Hotel	21	*Effect of Reconversion on Retail Distribution* R. W. Van Horn, Controller, J. Goldsmith & Sons Co.
Jamestown Hotel Jamestown	26	*What Education Should an Accountant Have?* A. L. Prickett, Dean, School of Business, Indiana University.
Kansas City Hotel President	18	*Adjusting Standards to Postwar Costs* Sam A. Marsh, Professor of Accounting, Washington University.
Lancaster Hotel Brunswick	22	*Costs in Today's Competitive Markets* James L. Dohr, Partner, Greene & Greene.
Lehigh Valley Elks Club, Bethlehem	15	*Effective Cost Control or Catastrophe* Percy L. Procter, First Vice President, Titeflex, Inc.

Chapter Meeting Place	*Date*	*Subject and Speaker*
Los Angeles Schully's Cafe	19	*Our Slips Are Showing—A Discussion on Budgeting* W. H. Wayman, Manager, Budget Div., Lockheed Aircraft Corp.
Louisville Brown Hotel	19	*Postwar Problems in Accounting* William W. Werntz, Chief Accountant, Securities & Exchange Commission.
Maine (State of) Lafayette Hotel	15	*The Legal Aspects of Accounting* M. A. Baitler, Assistant Treasurer, Perkins Machine & Gear Co.
Memphis Hotel Gayoso	20	*Making the Office Pay a Profit* P. A. Lawrence, Methods Research Div., Burroughs Adding Machine Co.
Milwaukee Milwaukee Athletic Club	18	*Budgetary Control of Manufacturing and Commercial Expenses* J. Brooks Heckert, Associate Professor of Accounting, Ohio State University.
Minneapolis Curtis Hotel	26	*Budget Analysis for Management Control* Benedict M. Sayre, Senior Partner, Benedict M. Sayre & Co.
Muskegon Occidental Hotel	18	*Labor Standards and Cost Accounting* S. A. Peck, Executive Vice President, The Trundle Engineering Co.
Nashville Andrew Jackson Hotel	12	*Changes in 1945 Income Tax Regulations* Early M. McCann, Chief, Income Tax Div., U. S. Internal Revenue Dept.
New Hampshire Carpenter Hotel	19	*Personnel Problems and Their Relationship with Industrial Cost Accounting* Paul Pigors, Professor, Dept. of Economics and Social Science, Massachusetts Institute of Technology.
New Haven Hotel Garde	26	*Property Records for Controlling Depreciation and Obsolescence* Clarence Crocheron, Vice President, The American Appraisal Co.
New Orleans Jung Hotel	22	*Making the Office Pay a Profit* P. A. Lawrence, Methods Research Div., Burroughs Adding Machine Co.
New York Hotel New Yorker	25	*Improving Old Product Lines and Developing New or Allied Lines* Norman A. Shepard, Director of Research and Chairman of New Projects Committee, American Cyanamid Co.
Newark Hotel Robert Treat	28	*Production Planning and Scheduling* Leonard V. Bedell, Plant Mgr., Nassau Plant, Sperry Gyroscope Co., Inc.
Peoria Jefferson Hotel	27	*A Case Study of a Standard Cost System in a Manufacturing Plant* William E. Perry, Controller, The Scranton Lace Co.

Chapter Meeting Place	Date	Subject and Speaker
Philadelphia Kugler's Chestnut St. Restaurant	21	*Unscrambling Property Accounts After the War* Clarence Crocheron, Vice President, The American Appraisal Co.
Pittsburgh Fort Pitt Hotel	20	*Changes in Pennsylvania Tax Law* I. H. Krekstein, Tax Consultant. *Protecting Corporate Assets with Insurance* Harry B. Morton, Vice President, Marsh & McLennan.
Portland Heathman Hotel	19	*Accounting Frauds* Howard I. Bobbitt, Special Agent, Portland Office, Federal Bureau of Investigation.
Providence Narragansett Hotel	18	*Cost Accounting and Its Importance to Executive Administration* Charles A. Kirk, Vice President, International Business Machines Corp.
Reading Wyomissing Club	15	*Tax Matters of Current Interest* Paul D. Seghers, Certified Public Accountant.
Richmond Hotel John Marshall	15	*Contract Termination in Retrospect* L. W. Adkins, Controller, Crosley Corp.
Rochester Hotel Seneca	20	*The Cost Accountant Tackles the Job of Transitional Problems* Irwin H. Schell, Professor and Head of Dept. of Business & Engineering Administration, Massachusetts Institute of Technology.
Rockford Hotel Faust	21	*Economics* W. H. Stevenson, W. H. Stevenson & Co.
Saginaw Valley Bancroft Hotel	20	*Accounting Economics* Llewellyn F. Wing, Controller, Booz, Allen & Hamilton Co.
St. Louis Coronado Hotel	12	*Labor Relations—Problems Ahead* F. M. Karches, Director of Operations, Rice-Stix Dry Goods Co.
San Francisco Engineer's Club	26	*Steampship Accounting* A. H. Poole, Vice President, American-President Lines.
Scranton Hotel Casey	18	*Panel Discussion: Federal Income Tax* Chairman: Joseph Rocereto, Public Accountant.
South Bend La Salle Hotel	19	*From Cost-Plus to Price-Minus* William Blackie, Vice President, Caterpillar Tractor Co.
Springfield Hotel Sheraton	20	*Overhead and Normal Capacity* Dr. Raymond P. Marple, Assistant Secretary in charge of Technical Service, National Association of Cost Accountants.

Chapter *Meeting Place*	*Date*	*Subject and Speaker*
Syracuse Hotel Syracuse	21	*Cost Accounting and Its Effect on Corporate Financing* Carl H. Maar, Vice President, Lincoln National Bank & Trust Co.
Toledo Secor Hotel	20	*Costs and Prices* William Blackie, Vice President, Caterpillar Tractor Co.
Tri-Cities LeClaire Hotel, Moline	19	*Human Factors in Production Cost Control—Are These Hidden?* C. C. Modica, Director, Training and Research, Management Dynamics.
Tulsa Mayo Hotel	20	*Standards as an Important Control of the Controller* Russell M. Riggins, Controller, Park-Davis & Co.
Utica Hotel Hamilton	11	*Cost Research—A Road to Better Management* William E. Jackman, Accounting Supervisor, Color Print Service, Eastman Kodak Co.
Wabash Valley Terre Haute House, Terre Haute	12	*Prices and Costs* William Blackie, Vice President, Caterpillar Tractor Co.
Washington Hotel 2400	20	*Cost Accounting in the Telephone Industry* T. S. Vanneman, Assistant Comptroller, Chesapeake & Potomac Telephone Companies.
Wichita Broadview Hotel	19	*Employee Relations* George Trombold, Personnel Director, Wichita Div., Boeing Airplane Co.
Wililamsport Lycoming Hotel	11	*Decentralized Accounting* John E. Flood, Manager of Accounting, Westinghouse Electric & Mfg. Co.
Worcester Sheraton Hotel	21	*Overhead and Normal Capacity* Dr. Raymond P. Marple, Assistant Secretary in charge of Technical Service, National Association of Cost Accountants.
York Hotel Yorktowne	20	*Distribution Costs* C. Howard Knapp, Stevenson, Jordan & Harrison, Inc.
Youngstown Tippecanoe Country Club	20	*Distribution Accounting* V. F. Covert, Westinghouse Electric Corp.

CHAPTER RATINGS

For Seven Months Ending December 31, 1945

	Applications, Reinstatements and Transfers	Member Attendance	Publications	Publicity	News Letters	Program	Employment	Board Meetings	Meeting Notices and Reports	Bulk Mailing	Financial Budget and Report	Special Activities	Total
1. Providence	1093	722	285	135	140	200	30	420	80	50	75	185	3415
2. Birmingham	1058	646	304	108	140	200	30	360	80	50	75	120	3171
3. Dallas	1125	432	240	110	140	200	30	358	80	50	75	120	2960
4. Atlanta	1125	396	90	122	140	200	30	386	68	40	75	145	2817
5. Hampton Roads	1044	457	188	106	140	200	26	330	76	40	75	120	2802
6. Jamestown	1030	455	98	125	140	200	30	350	80	50	75	185	2798
7. Memphis	1037	502	115	54	140	200	30	344	75	50	75	115	2737
8. New Hampshire	843	621	..	102	140	200	25	390	80	50	75	205	2731
9. Philadelphia	830	539	170	126	140	200	30	390	70	50	75	80	2700
10. New Orleans	896	575	168	118	140	175	30	338	75	40	75	40	2670
11. Utica	931	548	105	120	140	200	23	374	72	50	75	20	2658
12. Des Moines	1046	577	105	32	100	175	29	330	72	40	75	50	2631
13. Wabash Valley	958	417	195	66	140	200	9	360	80	50	75	70	2620
14. Los Angeles	955	366	250	103	140	175	30	300	72	50	75	95	2611
15. Williamsport	1031	371	..	117	140	200	29	298	75	50	75	145	2531
16. Milwaukee	628	415	295	103	140	175	30	388	80	50	75	145	2524
17. Scranton	843	406	118	99	140	200	30	360	80	50	75	120	2521
18. Minneapolis	648	643	156	100	140	200	30	300	80	50	75	70	2492
19. Fort Wayne	838	377	150	94	140	200	30	388	80	50	75	65	2487
20. Indianapolis	650	407	200	81	140	200	30	390	80	50	75	175	2478
21. Newark	601	603	155	130	140	200	30	330	80	40	75	90	2474
21. Worcester	477	410	258	129	120	200	30	330	80	50	75	315	2474
23. Chicago	576	500	235	120	140	200	30	359	80	50	75	70	2435
24. Toledo	603	401	162	115	140	200	30	420	80	50	75	155	2431
25. Baltimore	615	397	190	104	140	200	30	390	68	50	75	155	2414
26. Columbus	738	392	88	108	140	200	29	352	80	50	75	158	2410
27. New Haven	613	447	312	102	120	200	30	330	80	40	75	50	2399
28. Erie	589	393	90	120	140	200	30	390	80	40	75	245	2392
29. St. Louis	414	572	240	130	120	200	30	359	80	50	75	105	2375
30. Muskegon	1004	562	..	52	20	200	20	310	32	40	75	45	2360
31. Syracuse	833	399	72	81	80	200	30	413	80	40	75	40	2343
32. Hartford	579	413	160	135	140	200	30	330	80	50	75	120	2312
33. Akron	644	339	266	70	120	200	29	388	80	50	75	40	2301
34. Houston	680	374	125	114	140	200	30	360	80	50	75	70	2298
35. New York	473	464	230	109	140	200	30	390	80	50	75	45	2286
36. Boston	393	508	75	126	140	200	30	390	80	50	75	200	2267
37. Pittsburgh	477	398	280	114	100	200	30	411	80	50	75	50	2265
38. Chattahoochee Valley	1031	723	..	54	40	200	14	115	32	50	..	..	2259
39. Rochester	435	482	135	135	140	200	30	300	80	50	75	195	2257
39. Springfield	407	415	268	131	140	200	30	356	80	50	75	105	2257
41. Cleveland	394	597	85	98	140	175	30	359	80	50	75	155	2238
42. Dayton	362	407	265	135	120	200	30	390	68	50	75	130	2232
43. Brooklyn	548	437	135	122	140	200	29	357	80	50	75	45	2218
44. Bridgeport	395	389	165	131	140	200	30	369	80	50	75	180	2204
45. Maine	700	402	..	110	140	200	16	317	80	30	75	120	2190

	Applications, Reinstatements and Transfers	Member Attendance	Publications	Publicity	News Letters	Program	Employment	Board Meetings	Meeting Notices and Reports	Bulk Mailing	Financial Budget and Report	Special Activities	Total
45. Saginaw Valley	777	419	98	103	100	200	29	249	80	40	75	20	2190
47. Nashville	350	571	285	54	80	200	29	416	57	30	75	40	2187
48. Peoria	459	385	75	131	140	200	30	360	80	40	75	210	2185
49. San Francisco	472	464	140	106	140	200	30	326	80	50	75	100	2183
50. Jackson	882	306	..	67	100	200	27	361	74	40	75	45	2177
51. Denver	426	448	194	108	140	200	30	360	80	50	75	65	2176
52. Grand Rapids	516	457	84	48	140	200	30	358	80	40	75	115	2143
53. Richmond	653	637	113	27	80	175	10	244	65	40	75	20	2139
54. Washington	754	385	..	93	140	200	19	326	68	50	75	20	2130
55. Decatur	756	338	78	78	140	200	29	282	80	50	75	20	2126
56. Lancaster	372	387	150	118	140	200	30	390	80	50	75	130	2122
57. South Bend	525	492	98	84	140	200	29	330	72	30	75	20	2095
58. Calumet	650	439	..	57	140	200	24	298	68	40	75	50	2041
59. Albany	513	423	..	122	140	200	17	340	80	50	50	75	2010
60. Tri-Cities	350	375	168	126	140	200	29	360	80	40	75	20	1963
61. Kansas City	401	373	65	103	140	200	19	388	80	30	75	60	1934
62. Chattanooga	412	423	156	65	140	200	30	298	80	50	75	..	1929
63. Greenwich	450	394	..	106	120	200	30	385	60	10	75	80	1910
64. Detroit	321	394	195	76	140	175	30	330	80	50	75	20	1886
65. Lehigh Valley	300	410	10	130	140	200	28	358	75	30	75	125	1881
65. Rockford	338	501	..	55	100	200	30	342	80	40	75	120	1881
67. Wichita	210	373	252	88	100	200	30	384	75	50	75	40	1877
68. Cincinnati	396	367	162	53	80	200	30	313	80	50	75	70	1876
69. Reading	165	363	234	97	140	175	29	360	80	30	75	90	1838
70. York	88	380	138	131	140	200	30	385	80	50	75	140	1837
71. Tulsa	577	332	..	43	55	200	23	390	68	40	75	..	1803
72. Harrisburg	280	410	..	78	120	200	30	349	80	30	75	110	1762
73. Youngstown	350	216	132	108	140	175	30	298	72	50	75	90	1736
74. Buffalo	155	317	140	120	140	175	29	330	80	50	75	100	1711
75. Cedar Rapids	455	349	..	84	80	200	29	320	68	30	25	20	1660
76. Hagerstown	117	386	..	100	140	200	30	292	80	40	75	195	1655
77. Cuba	221	284	90	117	140	100	27	420	80	40	75	20	1614
78. Binghamton	216	415	..	60	135	200	19	260	80	30	75	90	1580
78. Portland	323	362	..	42	40	200	20	375	68	30	70	50	1580
80. Louisville	538	356	72	40	..	200	24	150	72	30	70	..	1552
81. Evansville	389	329	..	48	120	175	5	251	65	30	25	..	1437
82. Fort Worth	..	206	..	24	..	..	..	60	40	..	..	..	330
83. Hawaii	..	..	..	27	80	..	..	105	48	..	25	..	285